TECHNICAL NOTES

U. S. DEPARTMENT OF AGRICULTURE NEVADA SOIL CONSERVATION SERVICE

TN - BIOLOGY - NV-36 MAY 1990

Ring-Necked Pheasant

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U.S. DEPARTMENT OF AGRICULTURE WYOMING SOIL CONSERVATION SERVICE

Biology No. 218 January 1986

Subject: RING-NECKED PHEASANT*

General

Ring-necked pheasants (Phasianus colchicus) are found in association with irrigated farmlands throughout this region.

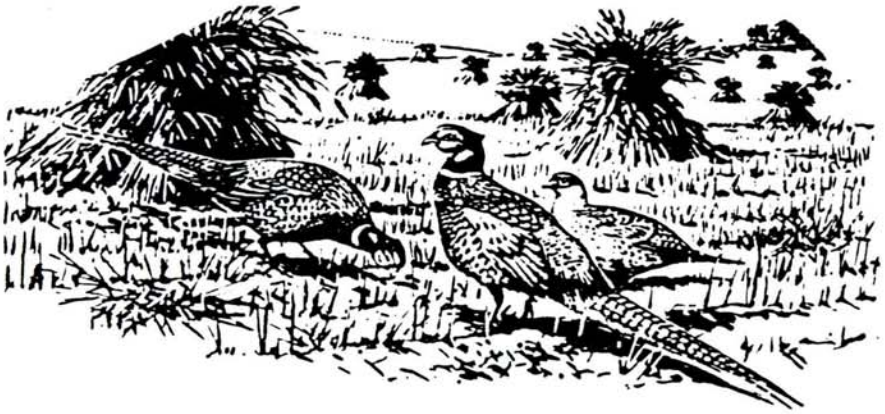
Food Requirements

Pheasants depend largely on seeds from farm crops to meet their food requirements. One study reported that farm crops comprised 82 percent of pheasant foods in South Dakota. Other foods eaten, in descending order of importance, were weed seeds, plant foliage, insects, and minerals. Barley, wheat, oats, and corn were the most important grain crops eaten in the northwest and Montana.

Insects are important in the diet of pheasant chicks. In California, grasshoppers were heavily used by chicks less than one week old. Insects became less important as chicks reached adult size. Another study reported that insects make up about 75 percent of the food eaten by juvenile pheasants.

Water Requirements

Most water needs are fulfilled from succulent foods such as insects, fruits, and green vegetation. Moisture from rain, dew, and snow also furnishes water for pheasants. Although pheasants may use free water, it is usually not necessary.



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*Information taken from Ecoregion M3113 Handbook and Habitat Suitability Index Models, Wildlife Species Narratives (literature searches), U.S. Fish and Wildlife Service, various dates between 1978-1985.

Cover Requirements

Winter pheasants habitat must offer adequate cover in close proximity to a food supply. Dense weeds and cattails were highly preferred winter roosting cover in north-central Colorado. Limited use was made of riverbottoms, ditchbanks, willows, and dry land grain stubble. The dense weed area was located farther from grain fields used for food than other cover sites, yet was preferred for roosting over all other cover types. Vegetation over 15 in (37.5 cm) was preferred in all cases.

On study reported that 5 to 20 percent scrub cover is ideal for pheasants. Woody cover was valuable to pheasants during the winter in Montana. Roadsides and drainage ditches with residual cover were preferred for night roosting in South Dakota.

Reproductive Requirements

Nesting cover consists of grasses, alfalfa, weedy fields, roadsides, fencerows, and small grain fields. Alfalfa fields were used for 35 to 75 percent of all pheasant nests in Colorado and Utah. Alfalfa and ungrazed permanent herbaceous cover were preferred nesting sites in north-central Colorado and small grain and pasture fields were used less frequently. Nest success in alfalfa was usually low due to factors including mowing, raking, and irrigation. Vegetation averaging 19.3 in (48.2 cm) in height was preferred by nesting pheasants on experimental plots in north-central Colorado.

Roadside cover was preferred nesting habitat in Nebraska with alfalfa ranking second. Nests in undisturbed residual cover in Montana had the best hatching success. Ideal vegetation was high enough to hide the hen and her brood and had an abundance of insects. Pheasant broods in Nebraska preferred wetlands, wheat stubble, noncultivated areas, and grain sorghum.

Special Habitat Requirements

Pheasants need areas where vegetation is sparse or absent to provide sites for dusting and obtaining grit. These areas are generally adjacent to escape cover.

Interspersion Requirements

Optimum pheasant range has all the necessary vegetative types in close proximity to one another. One study states that the greater the interspersion of essential habitat types, the better the pheasant-carrying capacity of the area.

Habitat diversity determines the size of the home range. Pheasants require smaller areas in more diverse habitats. In South Dakota, female home ranges averaged about 90 acres (36 ha). Another study found breeding ranges averaged about 31 acres (12.4 ha), but brood movements were restricted to 5 to 10 acres (2 to 4 ha) around the nest for the first three weeks after hatching.

Pheasants in north-central Colorado concentrated in areas of dense vegetation during winter months. Spring dispersal occurred in March and April and involved movements of 1 mi (1.6 km) or less. Pheasants in the Dakotas moved 10 or more miles (16 km) during spring dispersal from winter concentrations.

Special Considerations

Pheasant nests are frequently placed in alfalfa fields and the loss of nests from mowing varies from about 35 to 50 percent with a loss of 10 to 40 percent of the nesting hens. Flushing bars and similar devices are difficult for farmers to use, and delays in mowing until after the peak pheasant hatching date are not usually practical. Alfalfa mowing in Nebraska accounted for over 90 percent of the nest failures on private land. Undisturbed land set aside for pheasant nesting would greatly increase ring-necked pheasant productivity.